

synonyms of *X. hæmacephala* :—(1) *Bucco parvus* Gmelin, Syst. Nat. i. p. 407, of which the type locality is said to be Senegal; but the description shows that it is probably a small *Barbatula*, and anyway it has nothing to do with this Barbet. (2) *Bucco tathami* Gmel. Syst. Nat. i. p. 408. This is founded on the plate in Lath. Syn. i. and p. 504, which is not in the least like *Xantholema hæmacephala*. The plate is of a bird called "the Buff-faced Barbet," and no locality is given. (3) *Bucco nanus* Bodd. Tabl. Pl. Enl. p. 47: Cayenne. This is founded upon Latham's Black-spotted Barbet (i. p. 496), which probably represents *Capito niger*.

Shelley misquotes Marshall as giving this bird the name (amended) of *hæmatocephala* in his Monogr. Capit. p. 101, pl. 42 (1871), but as a matter of fact Marshall calls it *hæmacephala*.

It should be noted that the bird from Khorasan has a very small bill (12 mm.), and is very yellowish-green with an intense sheen on the upper plumage equalled by very few specimens elsewhere. This may well be an individual character, but it will be interesting to examine further specimens.

XIII.—Notes on Birds observed in Palestine.

By Major A. G. L. SLADEN, M.C., R.E., M.B.O.U.

(Plate IV.)

FROM July to the end of October 1917, I found myself in that curious semi-desert of southern Palestine which was then occupied by the Egyptian Expeditionary Force to the south and south-east of Gaza. The country here, though extremely fertile after the rains of winter and producing heavy crops of grain in the spring, becomes during summer and autumn a vast tract of dry and sandy land, swept by dust-storms and scorched by the sun. There are few trees

except along the coastal strip which includes Deir el Belah, Khan Yunus, and Rafa. Most of my observations were made in the neighbourhood of Shellal, a point some twelve miles from the mouth of the Wadi Ghuzze. This wadi, like most large wadis in Palestine and Sinai, was at this time of the year a huge dry river-bed with here and there a few shallow pools which, excepting a large brackish freshwater lake at Deir el Belah, provided the only surface-water in that part of the country. At Shellal there were several of these pools, and their presence no doubt was responsible for many of the migrants which came under notice.

After the advance of the British force in November and December 1917 the type of country became very different as we went northward, and some species which had appeared only on migration at Shellal were found to be resident farther north. On the other hand, I never found Tristram's Desert-Lark (*Ammomanes deserti fraterculus*) in any other place than at one particular spot on the Wadi Ghuzze.

Before the northward migration commenced there were very few birds to be seen in the area around Shellal, and one could almost count the common species on one's fingers, but once migration began there was a constant stream of newcomers. Doubtless a very much larger number of migrants passed south along the seashore and through the coastal strip of vegetation and did not penetrate even a few miles inland. The Quail, for instance, was a scarce occurrence at Shellal whilst thousands were passing along the coast.

I had no opportunities for careful observation during November and most of December 1917, but after that I increased my list very considerably, as might have been expected with the entire change in the nature of the country. The orange groves of Jaffa, the cultivation of the plain of Sharon, the marshy ground near Ramleh and Yebna, and the hills of Judea from Latron to the Jordan, provided such a variety of country that for some time I was daily recording fresh species.

I am very much indebted to Lieut.-Col. Meinertzhagen and

to Mr. M. J. Nicoll for their assistance in the identification of specimens. In reading the following notes it should be borne in mind that the period from July to October, inclusive, was spent in the Deir el Belah-Shellal area, and all subsequent dates, with the exception of a few days in May 1918, refer to the country on the Jaffa-Jerusalem line.

It has been a matter for regret that no opportunity has occurred for continued observation in the Jordan Valley and country to the eastward, as I imagine much of it must be regarded as of particular interest to the ornithologist. A number of species breed along the Jordan Valley, which in some places, owing to its peculiar climatic conditions, is almost tropical in its aspect.

All the skins enumerated have been presented to the British Museum.

I have prepared a map (Pl. IV.) on which are marked all the localities mentioned in my notes.

Corvus umbrinus. Brown-necked Raven.

Very common, in fact about the only species of Corvidæ seen near Shellal and Tel el Fara during August-October 1917. Round about Ramleh and Jaffa I only saw one during the following winter, but I observed several in the Judean Hills during this period.

Corvus corone. Carrion-Crow.

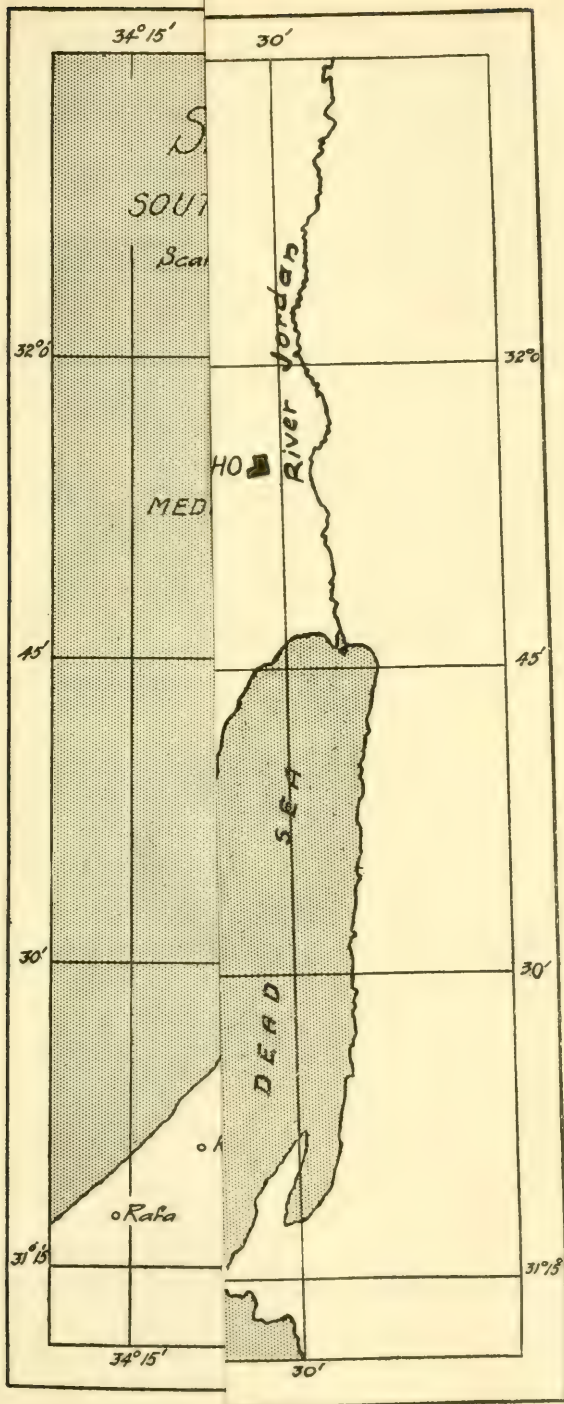
I secured one out of a flock of about twenty that I saw in Yebna marshes on 24 February, 1918. I had not previously found this species in Palestine.

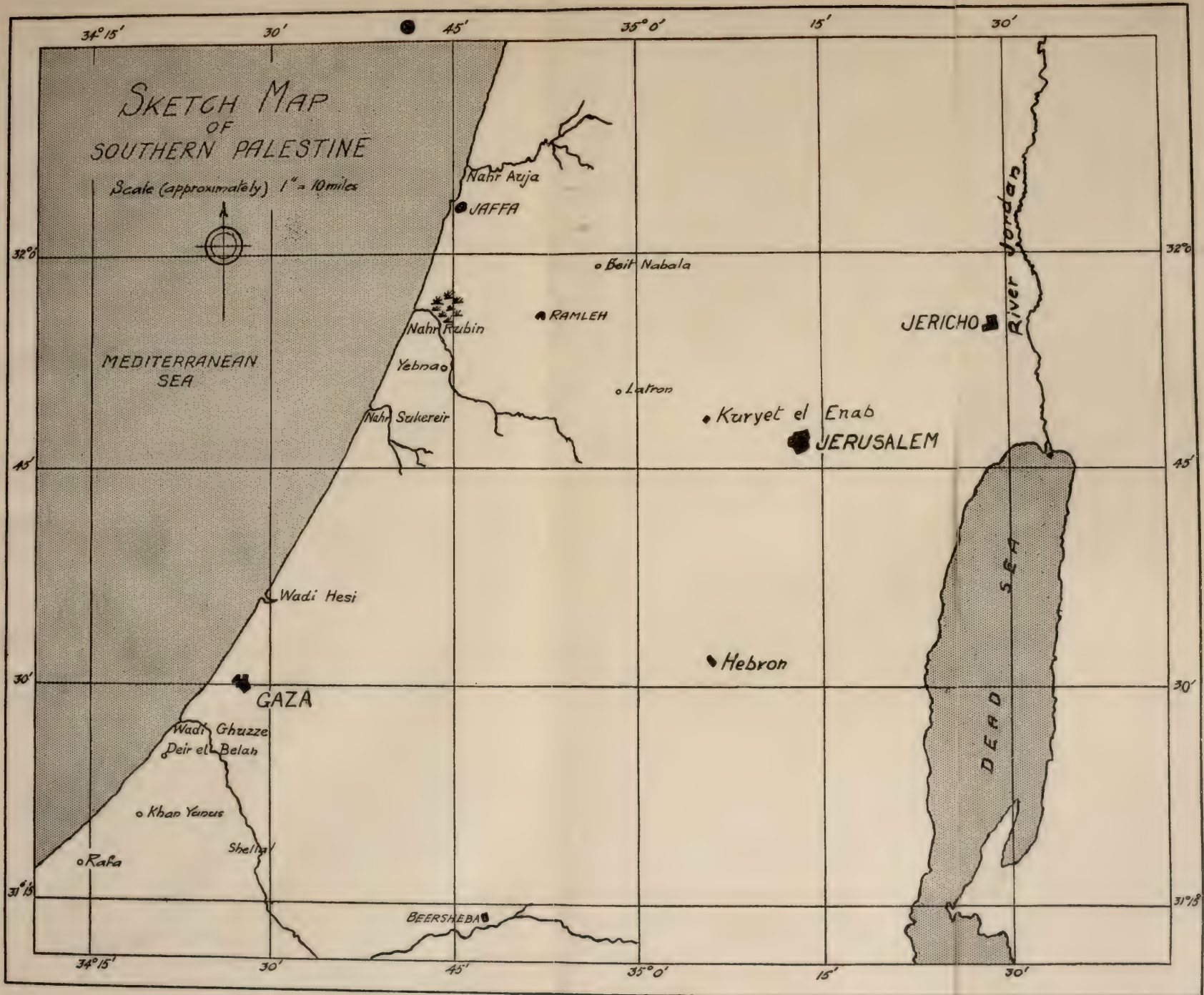
Corvus cornix. Hooded Crow.

I only saw two near Shellal and Gaza between August and October 1917. They became more common as we went farther north later. A few are to be seen about Jaffa and Ramleh at all seasons of the year.

Corvus frugilegus. Rook.

I first noticed a large flock near Ramleh, 4 December, 1917, and now and again a few small flocks during the





winter, but they were never common and appeared to be only passing.

Garrulus? species. Jay.

On 23 June I saw one of these birds at Kuryet el Enab, near Jerusalem (about 2000 ft. above sea-level). It appeared slightly larger than the British Jay. Its note was identical with the latter. Up to the time of writing I have been unable to secure a specimen.

Sturnus vulgaris. Starling.

None seen near Shellal during August to October 1917, with the exception of one which I saw at a pool near the Wadi Mirtaba, south of Beersheba, about 10 October. Large flocks were seen near Jaffa during the winter of 1917-18, and these roosted in the reed-beds of Yebna marsh. All these birds disappeared in March.

Pastor roseus. Rose-coloured Pastor.

One was secured near Rafa at the beginning of October 1917.

Oriolus oriolus. Golden Oriole.

1 ♀, near Gaza, ix. 17.

Several seen on migration near Gaza, September 1917. Seen again on northward migration 7 and 8 May, 1918.

Chloris chloris chlorotica. Palestine Greenfinch.

2 ♂, Jaffa, 20. xi. 18. 1 ♂, Jaffa, 27. i. 18.

Common in olive groves and orange plantations during winter months, and breeds commonly in suitable places. I found a nest containing five eggs on 14 March, 1918. The eggs of this bird are much smaller than those of the English form. The bird taken 27 January, 1918, is very much lighter in colour, and others which appeared to be similar were noticed during the winter months near Jaffa and Ramleh up to the middle of February. I strongly suspect this to be a distinct form, but there appears to be no other record.

Carduelis carduelis carduelis. Continental Goldfinch.

1 ♂, Jaffa, 28. i. 18.

Flocks were common in and about Ramleh and Jaffa during the winter. A considerable number remained during the spring and summer and nested commonly in the orange groves. On 16 April I found nests with young birds several days old. This species was found nesting as far south as Khan Yunus and Deir el Belah.

Passer domesticus biblicus. Palestine Sparrow.

1 ♂, Jaffa, 7. iii. 18. 1 ♂, Jaffa, 20. ii. 18.

Common wherever there is human habitation. This species nested also in caves and holes in rocky cliffs far from houses and villages.

Passer hispaniolensis transcaspicus. Spanish Sparrow.

1 ♂, Jaffa, 21. iii. 18. 1 ♀, Jaffa, 7. iii. 18.

I did not notice any of this species during the winter 1917-18 until 7 March, when I saw two males in company with *P. d. biblicus* near Jaffa. Later, however, they equalled the latter in numbers and nested commonly all over the country. To me the note of this bird was quite distinguishable from that of other sparrows, and its "chirrup" had a distinct trill which is peculiar to the species.

Fringilla cœlebs. Chaffinch.

1 ♀, Jaffa, 4. ii. 18.

Very common near Ramleh and Jaffa during the winter months, but not seen after March.

Acanthis cannabina fringillirostris. Linnet.

1 ♂, Kuryet el Enab, 23. vi. 18.

I obtained at Kuryet el Enab, near Jerusalem, on 23 June, an immature bird. There were a number of young birds of the year and a few adults. Some of the young birds were not very strong on the wing and appeared as if they had been bred locally. I had suspected *A. cannabina* in March when I thought I saw some at Jaffa. It certainly did not breed or remain during the spring in the plains.

This specimen has been compared with skins at the British Museum and agrees with birds taken at Nazareth and Tyre.

? *Erythrospiza githaginea* Desert Bullfinch.

I secured a bird which I took to be of this species at Belah on 3 May, 1918. Mr. M. J. Nicoll suggested that it was perhaps the Persian Bullfinch (*Rhodospiza obsoleta*), but unfortunately a rat took this skin from my dugout before I could submit it to Mr. Nicoll for examination.

Emberiza calandra calandra. Corn-Bunting.

1 ♀, Jaffa, 10. iii. 18.

Very common in Yebna Marsh during winter, also in suitable country to the north of Jaffa. They remained to breed, but their breeding-quarters were confined to marshy ground, probably on account of there being no suitable scrubby growth elsewhere.

Emberiza cæsia. Cretzschmar's Bunting.

1 ♂, Gaza, 4. ix. 17. 1 ♂, Gaza, 4. ix. 17. 1 ♂, Gaza, 20. viii. 17.

This species is very common during migration, which lasted throughout August and September at Shellal. They were seen again on spring migration, the earliest appearance being 21 March near Jaffa. Tristram says that he found them nesting commonly in the hills north of Jerusalem, but I found no trace of them breeding in the flat country around Jaffa.

Emberiza cia. Meadow-Bunting.

These were quite common near Jaffa during April 1918, and at Shellal I secured a female with incubation spots on 2 May. As far as I could see a few birds appeared to remain throughout the spring and summer.

Emberiza melanocephala. Black-headed Bunting.

2 ♂, Jaffa, 22. iv. 18. 1 ♂, Jaffa, 13. vi. 18. 1 ♀, Jaffa, 18. vi. 18.

This species was first observed near Jaffa about 20 April. The males appeared to precede the females by two or three days. Later on they nested commonly in the orange groves.

Emberiza hortulana. Ortolan Bunting.

1 ♂, Jaffa, 20. iii. 18.

A few seen on the northward migration, the first being near Jaffa, 20 March, 1918.

Alauda arvensis. Sky-Lark.

I saw none until we got north of Beersheba in November 1917. There I found large flocks and picked up many injured birds under telegraph-wires. This would be 10 November. They were common throughout the winter months near Jaffa and Ramleh. Possibly this is the eastern form *A. arvensis cinerascens*.

Calandrella brachydactyla brachydactyla. Short-toed Lark.

Common near the Wadi Ghuzze, July to October 1917. They also bred in the hilly country near Jaffa in the following spring, though only in comparatively small numbers.

Galerida cristata cinnamomea. Crested Lark.

1 ♂, Wadi Ghuzze, 7. x. 17. 1 ♂, Wadi Ghuzze, 1. ix. 17.
2 ♂ ♀, Jaffa, 1. iii. 18.

One of the commonest birds in all parts of Palestine which I visited and breeding freely everywhere.

Melanocorypha calandra calandra. Calandra Lark.

20, Wadi Ghuzze, 7. ix. 17. 1 ♂, Jaffa, 3. iii. 18.

Large flocks used to come to drink in the Wadi Ghuzze both morning and evening during August, September, and October, 1917. They always came in from the north, and during other times of the day none were to be found. I never saw one in the country south of the Wadi. During our advance north through Beersheba I came across them plentifully throughout the country up to Jaffa. During the following spring I found them breeding.

The apparently definite line of demarcation formed by the Wadi Ghuzze was very curious in view of the fact that Crested and Short-toed Larks were very common and breeding in the area south and south-east of the Wadi.

Lullula arborea. Wood-Lark.

These birds were common in small flocks near Ramleh in December 1917, but they appeared to be somewhat local, and I saw none after January 1918.

Ammomanes deserti fraterculus. Desert-Lark.

1 ♂, Wadi Ghuzze, 7. x. 17. 1 ♂, Wadi Ghuzze, 18. viii. 17.

I found this species in one spot only on the Wadi Ghuzze at Shellal during August, September, and October, 1917. They were fairly common within an area of about half a mile, but I saw them nowhere else, although doubtless they are not uncommon in similar localities.

Motacilla alba. White Wagtail.

1 ♂, Wadi Ghuzze, 20. x. 17.

These birds began to appear about 6 October, near Belah, and were all over the country south of Gaza by the 20th. They were very common and, in fact, the only Wagtail which I noticed during the winter 1917-18 around Jaffa, Ramleh, and Jerusalem.

Motacilla feldeggii. Black-headed Wagtail.

1 ♀, Jaffa, 17. iii. 18.

A specimen taken 17 March, near Jaffa, was identified as belonging to this species. There is not a doubt that both this and *M. flava flava* pass on migration in considerable numbers.

Motacilla flava flava. Blue-headed Wagtail.

1 ♂, Jaffa, 20. iv. 18. 1 ♀, Jaffa, 7. iv. 18.

As far as I was able to identify them a large number appeared near Gaza on migration 1 September to 15 October. Others were seen on spring migration near Jaffa during the first week in March.

Motacilla flava beema. Sykes's Wagtail.

1 ♂, Shellal, 13. ix. 17. 1 ♂, Jaffa, 20. iv. 18. 1 ♀, Jaffa, 7. iv. 18.

The first skin sent to the British Museum of a specimen

which I took at Shellal 13.ix.17. was referred to by Mr. Ogilvie-Grant as follows:—"This is an immature Grey-headed Wagtail which should, I think, be referred to *Motacilla flava beema*. I have sent it to a friend to ask him if he agrees in this identification."

These skins have been compared with those in the British Museum collection from India, with which they agree.

I first noticed them on 1 September at Shellal. By 25 September there were hundreds of similar birds all over the country, but they had all disappeared by October 1917, when *M. alba* began to be common, having put in their first appearance a few days later.

Cinnyris osea. Palestine Sunbird.

This was one of the most interesting species which I have come across. It is now apparently a regular winter visitor to the orange groves of Jaffa, though only in small numbers. I saw no trace of it after February. From inquiries I have come to the conclusion that it has only visited Jaffa during the last twenty-five years, that is to say since the orange groves have developed sufficiently to give it shelter in the winter, although it has been known to exist in the Jordan Valley. The blossom of the orange and lemon groves during January and February is doubtless the attraction. The skin of a male taken at Jaffa in February 1918 was submitted to Mr. M. J. Nicoll, and is now in the collection of the Giza Museum.

Anthus trivialis. Tree-Pipit.

1 ♂, Jaffa, 3. iii. 18.

Birds were noticed September 1917 near Rafa, and again near Ramleh and Jaffa 25 February and subsequently until April.

Anthus cervinus. Red-throated Pipit.

2 ♂, Wadi Ghuzze, 20. x. 17. 1 ♂, Wadi Ghuzze, 20. x. 17.

Common on migration about Shellal, October 1917; also in spring, farther north, I noticed a few birds on 14 and 21 April.

Anthus campestris. Tawny Pipit.

1 ♂, Jaffa, 29. iii. 18. 1 ♂, Shellal, 6. ix. 17.

Occurred commonly on migration near Gaza in the autumn, and was first observed there 13 September, 1917. Observed again 17 April, 1918, near Ramleh.

Anthoscopus pendulinus pendulinus. Penduline Titmouse.

1 ♂, Jaffa, 31. i. 18.

The above is the only one which I saw. It was secured in Yebna Marsh 31 January, and appears to be the first record of this species in Palestine. This individual varies in its wing measurement from that given by Hartert "55-58 mm.," being only 51 mm. In plumage and general character it agrees with males in winter in the British Museum collection.

Parus major blanfordi. Blanford's Great Titmouse.

1 ♂, Ramleh, 27. i. 18.

A comparatively common and resident species.

Lanius collurio. Red-backed Shrike.

2 ♂ ♀, Wadi Ghuzze, 26. viii. 17.

Common on southward migration in August and September about Deir el Belah and Shellal, but I did not notice it during spring migration in the Jaffa-Ramleh district.

Lanius minor. Lesser Grey Shrike.

1 ♂, Shellal, 28. viii. 18. 1 ♂, Shellal, 24. viii. 17.

Common on southward migration in August, September, and October, near Shellal; not noticed during spring migration in the Jaffa-Ramleh district.

Lanius elegans. Pallid Shrike.

1 ♂, Shellal, 8. viii. 17.

There were many about Deir el Belah and Shellal during August, September, and October, and the species is probably resident in extreme southern Palestine and Sinai, but I have not found it anywhere north of Gaza subsequent to these dates.

Lanius nubicus. Masked Shrike.

1 ♂, Shellal, 25. viii. 17. 1 ♂, Jaffa, 16. iv. 18. 1 ♂, Jaffa, 15. vi. 18.

A few passed south in August and September at Shellal, and it was the commonest of the Shrikes going north throughout the Jaffa-Ramleh area in the spring; a few birds remain throughout spring and summer. I did not find them nesting, but it is possible that some of these birds bred there.

Lanius senator. Woodchat.

1 ♂, Jaffa, 20. iii. 18.

Noticed on both migrations at Gaza and Jaffa.

Sylvia communis. Whitethroat.

1 ♂, Shellal, 26. viii. 17.

Plentiful on migration at Shellal during August, September, and October; also seen again in the spring of 1918 near Jaffa, where it nested commonly during April and May.

Sylvia curruca. Lesser Whitethroat.

A summer visitor about Jaffa and Ramleh, breeding commonly in the orange groves. The earliest arrivals made their appearance about 1 March.

Motacilla atricapilla. Blackcap.

1 ♀, Shellal, 7. x. 17.

Seen at Shellal on migration during the first week in October.

Sylvia melanocephala. Sardinian Warbler.

1 ♀, Jaffa, 2. iii. 18.

I first noticed spring arrivals about 1 March, and soon after they became very common and nested in the orange groves about Jaffa.

Sylvia ruppeli. Rüppell's Warbler.

A summer visitor to the orange groves about Jaffa, where it nested.

Sylvia orphea. Orphean Warbler.

I obtained a specimen at Shellal, 29 August, 1917. A specimen taken near Jaffa, 21 July, 1918, was of the thick-billed eastern type, *S. o. crassirostris*. It has only been noticed on migration. This bird was identified by Mr. M. J. Nicoll and presented to the Giza Museum.

Phylloscopus trochilus. Willow-Warbler.

1 ♀, Shellal, 24. viii. 17. 1 ♂, Shellal, 15. ix. 17.

This bird appears to winter to a large extent in Palestine, and was common at Shellal from about 23 August, 1917. During the following winter I noticed it everywhere, but it entirely disappeared in the spring.

Agrobates galactodes. Rufous Warbler.

1 ♀, Jaffa, 5. vi. 18. 1 ♂, Jaffa, 16. iv. 18.

A summer visitor breeding commonly in the orange groves and along the banks of wadis. This bird invariably includes in the lining of its nest portions of the cast skins of lizards and snakes.

Acrocephalus schœnobænus. Sedge-Warbler.

1 ♂, Shellal, 5. ix. 17.

Occurred commonly at Shellal during the autumn, and was again noticed in the spring near Jaffa.

Cisticola cisticola. Fantail Warbler.

1 ♂, Ramleh, 12. v. 18. 1 ♂, Jaffa, 25. ii. 18.

Very common and resident in the cultivated and marshy districts. I found it breeding plentifully in Yebna Marsh, where I took unincubated eggs on 20 June.

Prinia gracilis. Graceful Wren-Warbler.

Common and resident round about Jaffa and Ramleh. There appears to be some slight difference between this and the species which inhabits the Nile Delta.

Hippolais pallida. Olivaceous Warbler.

1 ♂, Shellal, 26. viii. 17. 1 ♀, Jaffa, 26. v. 18.

A common summer visitor nesting in the orange groves of Jaffa and Ramleh.

Turdus musicus. Continental Song-Thrush.

1 ♂, 14. i. 18.

Although common in Yebna Marsh during winter it mostly disappeared in the spring. I saw one bird, however, on 13 May, 1918.

Turdus merula. Blackbird.

Fairly common around Jaffa and Ramleh, also in Yebna Marsh, December to February, but none appeared to remain during spring and summer.

Turdus pilaris. Fieldfare.

Small flocks were seen in Yebna Marsh during January and February, 1918.

Monticola cyanus. Blue Rock-Thrush.

One was secured near Rafa about 20 September, 1917.

Phœnicurus phœnicurus. Redstart.

1 ♂, Shellal, 27. ix. 17.

First seen at Shellal about 25 September, 1917; always in small numbers until about 25 October. It reappeared at Jaffa towards the end of January, and birds were last seen as late as 28 April.

Phœnicurus titys. Black Redstart.

Two examples seen at Shellal, 3 August and 23 October.

Luscinia luscinia. Eastern Nightingale or Sprosser.

1 ♀, Shellal, 4. ix. 17.

Common on autumn migration at Shellal, though not noticed during the following spring.

Cyanosylvia suecica suecica. Red-spotted Bluethroat.

1 ♂, Jaffa, 28. i. 18. 1 ♂, Jaffa, 28. iii. 18.

Very common in Yebna Marsh during winter months, but none seen after the middle of April.

Cyanosylvia suecica cyanecula. White-spotted Bluethroat.

A much less common species than the last, and I only saw two examples, the first being on 12 April, 1918, and the other a few days later.

Saxicola rubicola. Stonechat.

1 ♂, Jaffa, 10. xii. 17. 1 ♂, Jaffa, 3. iii. 18.

The first I saw was in the Wadi Ghuzze near Shellal, 28 October. Later on, after the advance, I found this bird was very common all over the country. The birds had all gone by 1 April.

Saxicola rubetra. Whinchat.

1 ♂, Shellal, 27. ix. 17. 1 ♂, Dier el Belah, 2. v. 18.

A fairly common bird on migration. First noticed on 27 September near Shellal. I took a specimen at Shellal on 2 May, 1918. This bird was a female and had incubation spots. I saw none during spring and summer near Jaffa or Ramleh.

Enanthe enanthe. Common Wheatear.

1 ♂, Shellal, 21. ix. 17. 1 ♂, Jaffa, 28. iii. 18.

Comparatively common on both migrations along the coastal area.

Enanthe isabellina. Isabelline Wheatear.

1 ♂, Shellal, 1. ix. 17. 1 ♂, Jaffa, 3. iii. 18.

Quite the commonest of the Wheatears seen in the flat country near Gaza, where it appears to be resident. I noticed it on spring migration at Jaffa.

Enanthe deserti. Desert Wheatear.

1 ♂, Shellal, 19. x. 17.

A few were noticed near Shellal October 1917, and a considerable number on and after 29 March near Jaffa.

Enanthe leucomela. Pied Wheatear.

1 ♂, Wadi Ghuzze, 28. ix. 17.

I only saw one of these at Shellal, namely, on 28 September. A few were noticed on spring migration at Jaffa.

Enanthe hispanica xanthomelæna. Eastern Black-throated and Black-eared Wheatear.

1 ♂, Jaffa, 25. iii. 18. 1 ♂, Jaffa, 28. iii. 18. 1 ♂, Jaffa 22. iv. 18. 1 ♀, Jaffa, 4. vi. 18.

A resident species in all rocky and hilly country. I found both Black-throated and Black-eared birds generally distributed. Both forms nested in the cliffs of a small wadi near my tent in close proximity to each other, and I watched four pairs very carefully in order to identify the eggs positively. The specimens listed do not represent the number examined, but they were all that I had time to skin. The females of both forms were indistinguishable from one another, as were also the eggs. Nests were placed in small niches or holes in the wadi cliff and in rocky country under a stone or boulder. Of the eggs which I found in the wadi referred to fully two-thirds were addled, and one clutch of six were all addled. I never found nests with more than three young, and two was the usual number. This condition of the eggs may have been due to the intense heat. All my observations went to show that black-eared and black-throated birds were only forms of the same species, and there seems no sufficient reason for separating them.

Pycnonotus xanthopygius. Palestine Bulbul.

10, Jaffa, 12. xii. 17.

Extremely common all over the country where there is any tree-growth, except in the hills. Resident and breeds in the orange groves. Tristram remarks upon the beautiful song of this bird, comparing it to that of the Nightingale; but, although I lived in localities with these birds all around me from December to August, I never heard them utter anything but the shortest of songs seldom repeated. The note was very rich and full, but so uniform and unvaried—consisting of about five notes—that it almost became monotonous. I took several nests of three and four eggs each.

Muscicapa grisola. Spotted Flycatcher.

10, Wadi Ghuzze, 25. viii. 17.

Common on migration at Shellal in autumn of 1917; it also appeared about 1 May north of Jaffa. I found it breeding in the orange groves at Jaffa, 23 May.

Hirundo rustica transitiva. Palestine Swallow.

1 ♂, Jaffa, 22. i. 18.

A common resident whose numbers are considerably supplemented in the summer.

Hirundo rufula. Red-rumped Swallow.

In the coastal area this bird was only noticed on one occasion in March, but it was common in and about Jerusalem and Jericho, where it nested.

Delichon urbica. House-Martin.

A few noticed on migration in August and September at Shellal and Gaza.

Riparia riparia. Sand-Martin.

1 ♂, Ramleh, 22. v. 18.

A few noticed in August and September on migration near Gaza, also in spring near Jaffa. Large flocks noticed on 22 May.

Dryobates syriacus. Syrian Pied Woodpecker.

1 ♂, Beit Nabala, 9. v. 18.

I secured one at Beit Nabala, north of Ramleh, 9 May, 1918. Though not common, this species from all accounts of natives is resilient and fairly plentiful in suitable localities. I found it nesting in the Judean Hills, near Jerusalem, at 2000 ft., on 27 May.

Iynx torquilla. Wryneck.

1 ♀, 27. ix. 17.

Several seen at the end of September near Shellal and Gaza on migration. I saw them again on northward migration 24 March and onwards. I never heard this bird utter its very familiar cry.

Cuculus canorus. Cuckoo.

I took a specimen 5 April, 1918, which appeared to be on migration, and saw others. On only one occasion did I hear the familiar call-note.

Clamator glandarius. Great Spotted Cuckoo.

1 ♀, Jaffa, 25. iii. 18.

First seen near Jaffa 25 March, 1917. None later.

Micropus apus. Swift.

1 ♀, Jaffa, 16. iii. 18.

First seen at Jaffa 25 February, 1918, later on in increasing numbers; they remained throughout the summer. They could be seen every evening before dusk flying towards Jaffa to roost. They undoubtedly nested there, though I had no opportunity of actually finding eggs.

Micropus melba. Alpine Swift.

1 ♂, Ramleh, 2. vi. 18.

A few of these birds appeared on the Wadi Ghuzze on 25 September, 1917, and I secured two. I never saw them again that autumn, but I saw several flying northward over Yebna Marsh 12 May, 1918. On 2 June, 1918, I visited Yebna Marsh and found literally hundreds flying about in the neighbourhood. Of specimens which I secured, two were immature birds of the year. These birds appeared to have no particular direction of flight beyond that they were flying with or against the wind, which was north-east at the time. Up to this date I have never seen any along the coast north of Jaffa, though I have seen isolated birds in the Judean Hills a little west of Jerusalem during May.

Caprimulgus ægyptius. Egyptian Nightjar.

1 ♂, Jaffa, 20. iv. 18.

A specimen was secured, the only one seen, 20 April, near Jaffa. This bird has the most wonderful protective colouring, and it took another officer and myself several minutes before we could see it at a distance of ten yards in open ground.

Merops apiaster. Bee-eater.

1 ♀, Jaffa, 10. iv. 18.

I saw a large number passing south when at Shellal between the 1st and 12th of September. I am told that they used to breed in holes in the wadi cliffs earlier in the

year. At Jaffa I first saw birds on northward migration on 2 April. By 20 April there were hundreds, but nearly all passed on, and at the beginning of June they were quite common, but only a remnant of the earlier numbers.

Upupa epops. Hoopoe.

The earliest appearance was at Jaffa 21 February. At no time did I see them at all commonly. None remained during summer. I noticed migrants again on 28 July.

Alcedo ispida pallida. Kingfisher.

1 ♂, Wadi Ghuzze, 15. viii. 17.

I found this species on the Wadi Ghuzze in September near Shellal. At the mouth of the wadi, south of Gaza, hundreds were seen during migration. I also found them during the winter at Jaffa, where they would sit on the rocks in the sea and fish in the pools around.

Ceryle rudis. Pied or Black-and-White Kingfisher.

A few were to be seen at Jaffa and in Yebna Marsh during the winter of 1917-18, and one pair nested at Nahr Auja.

Halcyon smyrnensis. Smyrna Kingfisher.

1 ♂, Jaffa, 13. v. 18.

Two males were secured close to Jaffa on the river Auja, 13 and 14 May, 1918. Several pairs bred later.

Coracias garrulus. Roller.

1 ♂, Ramleh, 9. v. 18.

A large number passed through the country near Gaza from 7 September to about 14th. They reappeared on 1 May near Gaza, and almost simultaneously near Jaffa. Common in Yebna Marsh 12 May.

Flammea flammea. Barn-Owl.

Up to the time of writing I have only heard of one specimen being taken. This was near Khan Yunus, Gaza, September 1917. I saw the skin. I also saw a bird at night in moonlight about the same date and locality. It appears to be an uncommon species in southern Palestine, and perhaps only occurs on migration.

Athene noctua glaux. Little Owl.

1 ♂, Wadi Ghuzze, 16. viii. 17.

Common everywhere. Breeds.

Asio accipitrinus. Short-eared Owl.

1 ♀, Yebna Marsh, 10. i. 18.

Secured one specimen in Yebna Marsh 10 January, 1918.

This is rather lighter generally than others in the British Museum collection.

Neophron percnopterus. Egyptian Vulture.

Fairly common August, September, October, near Gaza.

I saw none after October, though some were reported in the Judean Hills at Christmas. They began to reappear in March.

Gyps fulvus. Griffon Vulture.

This Vulture was not uncommon near Gaza in July and onward. All I saw were flying very high, with the exception of twenty which I noticed on 14 November, 1917, feeding on a dead camel at Imara, north-west of Beersheba. After our advance towards Jerusalem, which began on 31 October, the whole country was strewn with dead animals which it was impossible to bury, but there were very few vultures anywhere and the carcasses were largely eaten by jackals and foxes.

Circus æruginosus. Marsh-Harrier.

1 ♀, Yebna Marsh, 25. ii. 18.

Very common in Yebna Marsh, and breeds there.

Circus cyaneus. Hen Harrier.

1 ♂, Yebna Marsh, 17. iii. 18. 2 ♂, Yebna Marsh, 28. xii. 17.

Common at intervals during December, January, February, and March in Yebna Marsh.

Buteo ferox. Long-legged Buzzard.

1 ♂, Yebna Marsh, 2. ii. 18.

Fairly common at Shellal September and October 1917. Also during winter around Jaffa and Ramleh.

Buteo rufiventer (:= *B. desertorum* auct.)*. Steppe Buzzard.

1 ♂, Yebna Marsh, 14. i. 18.

Common during winter in the plains, but rare in summer.

Accipiter nisus. Sparrow-Hawk.

1 ♀, Ramleh, 24. xii. 17.

I secured a female which was in pursuit of some small birds 23 December, near Ramleh. Fairly common during winter, but not seen after March until July.

Milvus ægyptius. Yellow-billed Kite.

I am inclined to think that all of the Kites I have seen belong to this species. They were common around Gaza and Shellal in August and September 1917, and on 20 October there were literally hundreds sitting all over the sandy, sun-dried country for twenty-four hours during migration. They were very tame, and I rode to within fifteen yards of several. I found them breeding in April in the Judean Hills in some tall pine-trees near Beit Mahsir. These trees grow on the top of a high hill which stands out prominently in the landscape as one travels from Ramleh to Latroon. This point is about 1800 ft. high, and is one of the very few places in this district where these trees grow.

Falco peregrinus, subsp.? Peregrine Falcon.

I shot one which came regularly to attack a pigeon-loft in February 1918. It is not uncommon on both migrations.

Falco subbuteo. Hobby.

A few were observed during migration in September at Shellal, and others were seen during winter near Ramleh.

Falco barbarus. Barbary Falcon.

Up to 1 March, 1918, I saw four examples which appeared to belong to this species since 9 December, all in the vicinity of Jaffa and Ramleh. Also north of Jaffa 12 April, but I did not secure a specimen.

Falco cherrug. Saker Falcon.

One was secured near Rafa August 1917. I saw two examples sitting on telegraph-poles near Shellal at the beginning of the same month.

* See pp. 253-254.

Falco aesalon. Merlin.

1 ♂, Yebna Marsh, 3. ii. 18.

A male secured 3 February, 1918, in Yebna Marsh, near Jaffa. Other examples were reported at Khan Yunus September 1917.

Falco tinnunculus. Kestrel.

1 ♂, Shellal, 18. ix. 17. 1 ♀, Shellal, 6. x. 17. 1 ♂, Shellal, 6. x. 17.

Common and resident in Palestine. Amongst the hundreds which I saw at Gaza in the autumn I only noticed one adult male. In the spring at Jaffa, Ramleh, Jerusalem, etc., they bred freely in suitable places, and I found nests in the walls of unused wells 20 ft. below ground-level.

Tadorna tadorna. Common Sheld-Duck.

Two of four seen, were secured in Yebna Marsh, 2 February, 1918.

Tadorna casarca. Ruddy Sheld-Duck.

Saw one in Yebna Marsh, 14 January, 1918.

Anas boscas. Mallard.

A few seen during winter in Yebna Marsh and others flying high. They were never common.

Querquedula crecca. Common Teal.

One seen in Wadi Ghuzze 10 September, 1917, and many more in Yebna Marsh December, January, and February.

Querquedula querquedula. Garganey.

1 ♂, Yebna Marsh, 21. ii. 18.

One secured in Yebna Marsh out of a small flock 21 February, 1918.

Mareca penelope. Widgeon.

A few seen in Yebna Marsh from time to time during winter months, but most during December.

Spatula clypeata. Shoveler.

A few pairs frequented Yebna Marsh during the winter months.

Dafila acuta. Pintail.

One of the commonest of the ducks during winter, but as there was little suitable inland water I saw mostly large flocks flying along the sea-coast on migration in February.

Nyroca ferina. Pochard.

I saw a few odd birds in Yebna Marsh during the winter 1917-18.

Nyroca nyroca. White-eyed Pochard.

I killed one in Yebna Marsh in February. This is one of the commonest ducks in Egypt during winter, but it was not common in southern Palestine.

Glaucion clangula. Golden-eye.

1 ♀, Yebna Marsh, 20. i. 18.

A single specimen was taken near Jaffa, 20 January, 1918.

Ardea cinerea. Heron.

One seen on the lake at Belah, near Gaza, 3 May, 1918; also one frequented Nahr Auja, near Jaffa, during spring.

Ardea purpurea. Purple Heron.

Saw two on 2 and 3 May, 1918, at Belah Lake, near Gaza.

Ardeola ralloides. Squacco Heron.

1 ♂, Dier el Belah, 3. v. 18.

Saw two pairs on Belah Lake, near Gaza.

Ardeola ibis. Buff-backed Heron.

Saw one on Belah Lake, near Gaza, 3 May, 1918.

Nycticorax nycticorax. Night-Heron.

I secured a specimen of an adult male in Wadi Ghuzze, 19 September, 1917. I never saw another there, though I often heard them passing over at night during migration. A pair frequented the trees by Nahr Auja, north of Jaffa, in April and May. I saw them up to 8 May.

Botaurus stellaris. Bittern.

1 ♀, Yebna Marsh, 31. xii. 17.

I do not think I ever visited Yebna Marsh without seeing one or more between December and February. I saw birds 19 May, 1918, and on several subsequent occasions up to July. Found an old nest with egg-shells 15 July.

Ixobrychus minutus. Little Bittern.

1 ♀, Ramleh, 12. v. 18.

Common in suitable localities for about ten days from 7 May.

Ciconia ciconia. White Stork.

A pair seen at Bir el Esani, south of Beersheba, 4 September 1917, and two on 13 November in open dry country near Sheria, north-west of Beersheba. I also noticed a flock of about ten in Yebna Marsh 4 February, and on 8 March I saw several flocks of some hundreds each, circling and making their way northwards along the coast just inland. At Wadi Ghuzze, 3 May, 1918, I found many scores of birds lying by the pools, apparently dead from exhaustion. During April and May there were thousands scattered over the Judean Hills but few in the plains near Jaffa. On 2 June I saw two flights of several hundred birds each near Ramleh. It is a little surprising to me that I have seen no signs of them breeding anywhere in or south of the Jaffa-Jerusalem line, although there are many suitable sites.

Ciconia nigra. Black Stork.

Major Austin, R.A.M.C., reported having seen one amongst a flock of white storks in the vicinity of Jericho in June.

Plegadis falcinellus. Glossy Ibis.

A few were seen near Ramleh during spring migration.

Grus grus. Crane.

I saw four of these birds in the open sandy country, nowhere near water or vegetation, north-west of Beersheba, near Sheria, 14 November, 1917.

Chlamydotis macqueenii? Macqueen's Bustard.

A flock of eight Bustards was first noticed in the flat country near Ramleh about 5 July. I watched these myself through glasses for some hours, but was unable to obtain a specimen. An officer, however, shot a bird which when plucked and cleaned was said to weigh 4lb. They all disappeared on 28 July.

Some tail-feathers were sent to Mr. M. J. Nicoll, who gave it as his opinion that they belonged to either *C. undulata macqueenii* or *C. undulata undulata*, very probably the former.

Edicnemus œdicnemus. Stone-Curlew.

1 ♀, Jaffa, 19. iv. 18.

A few in Yebna Marsh in December 1917, but none in January and February. They frequented the hilly ground in the vicinity. Several birds, about twenty pairs, frequented the stony hills north of Jaffa during April 1918, and I found one egg 18 April.

Cursorius gallicus. Cream-coloured Courser.

1 ♂, Shellal, 21. ix. 17.

Very common round Shellal from August to November. Noticed near Ramleh the following June and July. A nest containing two eggs was found as late as 25 July, and unfledged young 30 July.

Glareola pratincola. Collared Pratincole.

Two pairs seen at Belah Lake 3 May, 1918, and many about Yebna Marsh 12 May. One or two pairs bred near the mouth of Nahr Rubin, and I saw young on 30 June.

Glareola nordmanni. Black-winged Pratincole.

1 ♂, Wadi Ghuzze, 4. x. 17.

I secured one of a few I noticed on the sandy desert near Wadi Ghuzze.

Scolopax rusticola. Woodcock.

I shot one on the sand dunes south of Jaffa, near Wadi Rubin, 8 January, 1918, and others were reported as having been seen in Yebna Marsh in December.

Gallinago gallinago. Common Snipe.

I saw one or two on the wing in September at the Wadi Ghuzze, and later they were plentiful in Yebna Marsh during winter.

Limnocryptes gallinula. Jack Snipe.

Fairly common in Yebna Marsh during winter.

Tringa minuta. Little Stint.

Many seen September and October on pools in Wadi Ghuzze.

Tringa alpina. Dunlin.

1 ♂, Wadi Ghuzze, 23. ix. 17.

Frequented pools in the Wadi Ghuzze in September. One secured on 25 September had almost completely changed to winter plumage. Common on the coast near Jaffa January and February.

Tringa ferruginea. Curlew Sandpiper.

I saw a small flock and secured one at Belah Lake 3 May, 1918.

Calidris arenaria. Sanderling.

1 ♂, Jaffa, 4. i. 18.

Common on the sea-coast during winter.

Machetes pugnax. Ruff.

2 ♂, Jaffa, 15. iii. 18.

These birds were common in flocks on flood-water near Jaffa during the winter, and when the two birds were secured some of the males were beginning to show white on the neck. On 3 May I shot a female at Dier el Belah, and noticed a small flock in Yebna Marsh as late as 2 June.

Totanus totanus. Common Redshank.

1 ♀, Yebna Marsh, 12. v. 18.

A few seen on the freshwater lake at Belah 2 May, and I secured a specimen in Yebna Marsh 12 May, 1918.